An experiment in applied econometrics

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AN EXPERIMENT IN APPLIED ECONOMETRICS

Call for participants

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1. Introduction

We are proud to announce a major experiment in applied econometrics. The experiment consists of running a controlled field trial in applied econometrics in which participants representing many different approaches are invited to take part. We as organizers of the experiment (hereafter 'MM') have selected one classic paper, namely:

J. Tobin (1950), 'A statistical demand function for food in the U.S.A.', *Journal of the Royal Statistical Society*, Series A, Vol. **113**, Part II, 113–141.

This paper will serve as the baseline for evaluation and will provide the original data set and problems. We will provide the participants with the Tobin data set. In addition, we will provide two other data sets: an extended set of US food data, and a relevant set of Dutch data. Each participant (or group of participants) will be asked to answer specific questions using the data supplied. Strict rules will govern the experiment. A workshop at CentER for Economic Research, Tilburg University will bring all studies together. Assessors will be asked to comment on the findings. Selected reports with discussion will be published in a special issue of the *Journal of Applied Econometrics*. The following econometricians have already agreed to participate, either alone or heading a small group: Richard Blundell (University College, London), David Hendry (Nuffield College, Oxford), Ed Leamer (University of California, Los Angeles), Adrian Pagan (Australian National University), and Hashem Pesaran (Trinity College, Cambridge) and Ron Smith (Birkbeck College, London). However, if you or your group agree with us that this is an exciting experiment and if you are willing to abide by the rules and the time schedule, then you are strongly encouraged to participate. You will have to announce your commitment by 1 July 1995.

2. Purpose of the Experiment

The establishment of credible applied econometrics is possibly the most important task of econometrics today. Our aim is to assess different ways of doing econometrics by a field trial

experiment. The basic idea of the experiment is very simple, namely to take a specified data set and let several researchers from different approaches and beliefs work on this data set, propose the most suitable model, forecast, producing estimates, investigate policy implications, etcetera. Our aim is to assess, within the environment of our experiment, the advantages (if any) of 45 years of econometric theory since Tobin's paper, the impact of new economic theories (permanent income hypothesis), and, of course, the differences between the several ways of doing econometrics in a practical application. We expect that the outcomes of the experiment will be an inspiration and guide to colleagues and students alike.

3. Design of the experiment

We have selected Tobin's 1950 paper as an example of 'good applied econometrics'. This paper will provide the baseline for the participants' own analysis. The experiment has been designed to show first what difference modern approaches and technologies make to Tobin's results. Beyond that base level, we want to generate information which will enable comparative assessment of the different approaches to be made by a panel of independent assessors. By constraining the participants to the same data set and asking all participants to carry out a well-specified set of 'tasks' (how they perform the tasks is up to them), the experiment will provide the raw material for explicit and constructive assessment.

We have thus chosen, in addition to Tobin's data set, two further sets of data in order to satisfy two objectives: comparability and diversity. On the one hand we want the data to be sufficiently simple so that we can isolate the impact of the changes in technology and theory since 1950. On the other hand we want sufficient richness in the data sets so that the study is interesting for its own sake and allows the participants to shine in their own specialities. Combining these two objectives is not easy. We elaborate under A below.

Participants

A 'participant' may be an individual or a team of researchers (or even a group of students). Each 'participant' will be treated as one unit.

All participants will receive an 'experiment information pack' from MM containing:

A: data

a) the set used by Tobin
b) further data (after 1950) for the USA
c) data of same type, but from the Dutch economy, which we label the 'alternative data set'

The USA data will be both time series and cross section data in the same spirit as Tobin's data. This data set will be somewhat narrow, but will enhance comparability of the various approaches. The Dutch data set, on the other hand, will be much richer. This set combines time series (1948–1988) data with two or three budget studies.

B: tasks

A short list of questions will form *the 'tasks' for the participants*. This will consist of five tasks (although participants may choose not to perform all of these if their approach does not permit it). The first four tasks will be fully specified by MM. The tasks are:

a) several measurement tasks (e.g. to estimate an economic relation/elasticity etc.)
b) a forecasting task
c) a policy related question
d) a (re)evaluation task of the work performed in the light of the alternative data set
e) a task chosen and executed by the participant(s)

C: rules

We intend to keep the rules as simple as possible and to trust the honesty of our professional colleagues. The rule book will be a more elaborate version of what is given in section 4 below.

D: reporting procedures

All participants are asked to keep a summary log of the process by which they arrived at their results. We think that the process is at least as important as the results in making an assessment of the various approaches. This information — the path of their applied work practice — we want to see submitted as part of their reports and to publish with the final version of the paper. We will specify what else should be incorporated in the report (i.e. short description of data set; short summary of approach with appropriate references to longer descriptions; account of process; analysis with results according to own criteria of success; results of preassigned task questions).

4. The rules

We believe that strict rules (however upsetting to the free spirit of academics) are necessary to the success of the experiment. Comparability of the results (difficult in the best of worlds) will depend on strict controls of certain aspects of the experiment. We have attempted to keep the rules as simple as possible. A more elaborate list of rules will be supplied with the information pack.

R1 Only data supplied by MM can be used. (However, there is no restriction on the use of economic theory and econometrics.)
R2 No information concerning the ongoing experiment should be exchanged between participating experimenters before 1 July 1996.
R3 The time schedule is holy.
R4 A logbook of the process by which the results have been obtained must be kept and a summary logbook must be submitted as one section of the final report.
R5 All results must be reproducible.
R6 The focus of each report must be the tasks set by MM.
R7 MM will not participate as one of the research groups producing a report.
R8 In cases where the above rules do not apply or where a change of the rules is deemed necessary, the decision by MM is final.

5. Assessment

All reports should be submitted to MM by 1 July 1996 at the latest. After preliminary filtering (if necessary) we shall send the reports to a panel of independent experts for commentary.

In an experiment such as this it is essential to maximize the quality and minimize the bias of the assessors. In order to avoid the problem of having assessors who are all in one 'camp', we will ask each participant to nominate two assessors who they feel are appropriate for their approach. However, we will select our own assessors in addition to some from the proposed names. In order to minimize bias, assessors will comment on several papers, not only on the one for which they have been nominated. The assessors will act as commentators on the submitted reports and as referees for publication purposes.

The experiment is organized and run by MM. The *Journal of Applied Econometrics* provides an important, professionally neutral, place to report the results. MM will serve as guest editors of the special issue and will assume complete editorial responsibility. This will allow the editor, co-editors and members of the editorial board to participate if they wish, without any advantage or prejudice. The special issue will contain the most interesting reports, as judged by us and the independent assessors (acting as referees). The papers/reports will be refereed and chosen according to the highest academic standards and procedures normal for submissions to the *Journal of Applied Econometrics*. (This rule applies also to the invited participants!) The special issue will also include some public commentaries by the panel of assessors.

6. Time schedule

A strict time schedule is a necessary condition for the success of this experiment. The date and location of the workshop are fixed and the date that copy will have to be with the *Journal of Applied Econometrics* is fixed as well.

1 July, 1995	Interested experimenters have announced their interest and willingness to participate and information packs have been sent out
1 July, 1996	All experiment reports with MM
1 September, 1996	Selected reports to assessors
14–17 December, 1996	Workshop at CentER, Tilburg University, The Netherlands
1 March, 1997	Assessors comments to MM
1 October, 1997	Publication of Special Issue of the *Journal of Applied Econometrics* (Vol. 12, Supplement).

7. How to enter?

To participate or for questions and comments, please contact (preferably by e-mail):

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To enter the experiment, your firm commitment must be received by 1 July 1995.